BRUHAT BANGALORE MAHANAGARA PALIKE
RAJARAJESHWARINAGAR ZONE
ELECTRICAL DIVISION
DETAILED ESTIMATE FOR PUBLIC WORKS

Name of the Work:Providing and fixing of LED Street Light in Ward No 16 in RR Nagar Division							
Est. No.AEE/ELE/RRNZ/ EST/ / 17-18				Job Code: 016-17-000007		Est Amt Rs15.00 Lakhs	
Sl No	SR ref page	SR ref sl no	Description of Work	unit	Qty	Rate	Amount
1	xxvii	387	Supply of solar lux level street light controller -single phase 3KW	Each	20	7984.00	159680.00
2			Wiring for lighting/power circuit using one of FRLS PVC insulated 11oov grade, multistrand copper with low conductor resistence single core wire in open or consealed system of wiring wit specified IS-694:1990 & confirming to GTP of group A..				
	6	2.5.3	2.5 sqmm	Per Mtr	40	29.20	1168.00
	6	2.5.5	6 sqmm	Per Mtr	80	63.80	5104.00
3	27	4.35.3	LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 Roads as per IS 1944 Part I & Part II. LED Streetlight 65watts	Each	30	18720	561600.00
4	22	4.16	Supplying High pressure Sodium Vapour street light luminaire 250Watts suitable for use with high pressure Sodium Vapour lamp with integrated control gear & grey color power coated. The fitting shall be non corrosive pressure die cast aluminum housing with high purity anodized aluminum reflector with EPDM Gaskets suitable for Outer Dia of pole 40mm - 60mm. Cable Entry through a cable gland with toggle clips. IP65 Protection for both optical & Electrical Compartment. Bottom cover may be with Poly carbonate/tempered/ toughened glass. Luminaire efficiency should be >60% & ambient temperature > 35 deg C. High Intensity Discharge Electro Magnetic Ballast with Copper winding of Orthocyclic winding coil. Class H insulated dual coated copper wire. Compliance to IEC 61347-2-9 Safety & IEC 60923 - Performance. Winding Temperature for HID Ballast Tw = 130 deg C & temperature rise ?T = 70 deg C. Luminaire shall be suitable to operate on 230/250 Volts finish including wiring, suitable to operate on 230/250 Volts 50 Hz AC supply finish including wiring, ignitor, condenser. SS Toggles for opening front hingeable glass.	Each	45	6900	310500.00
5	108	17.2.2	Supplying and Fixing.....mm dia class A GI pipe bracket up to 2.7 meters long terminated with a reducing collar of 40x25mm to which extra pipe of 175mm length is fixed for fixing MV/SV/MH/FTL street light fitting of all capacities on rail/RCC/wall/tubular pole, using suitable clamps,	Each	75	1140	85500.00

o	SR ref pg	SR ref sl no	Description of Work	unit	Qty	Rate	Amount
6	108	17.5	Releasing and Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires.(1.9 times the Basic Rate for Fixing)	Each	30	334.4	10032.00
7	45	6.7.3	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers. -63Amps	Each	20	234	4680.00
8	46	6.12.3	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947.--60-70Amps	Each	20	4774	95480.00
9			Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.				
	47	6.16.1	5-32Amps SP	Each	20	418	8360.00
	47	6.16.2	40-63 Amps SP	Each	20	677	13540.00
10	49	6.39.1	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint -40x40x6mm	Per Mtr	20	263	5260.00
11	50	6.42.2	Supply and Installation / Fixing / Provision of Outdoor type Thermoplastic Modular Panel enclosure with transparent Polycarbonate Lid, shock proof, IP65 (Weather Proof), rust proof, dust proof, water proof, corrosion proof having internally Embedded gasket on both lid and flap suitable to fix Single Phase / Three Phase Energy Meter in suitable base plate and having a provision for Fuse / MCB cutout with suitable transparent hinged flap opening for operating MCB along with complete tamper proof SEALING facility. --300mmx450mmx214mm)	Each	20	5826	116520.00
12	55	7.4.5	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A. 3.5 core 25 sqmm	Mtr	200	165.6	33120.00
13	61	7.8..7	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.On wall /Structure - 25 sqmm to 75 sqmm	Mtr	200	34.8	6960.00
14	62	7.14.2	Supplying and fixing of heavy duty cable glands suitable for UG cable of 1.1 KV class (metal only) 25mm dia	Each	20	86	1720.00
15			Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.				
	64	7.21.6	16 sqmm	Each	160	11.31	1809.60
	64	7.21.7	25 sqmm Long Barrel	Each	80	20.59	1647.20
16	61	7.7.1	Supplying of 1.1KV grade Stranded & Compacted Aluminum Phase Conductor and Stranded Messenger Conductor with all aluminum Alloy. Phase Conductor is insulated with XLPE Compound, Bare Messenger as per IS-14255:1995 & confirming to GTP of GROUP-B. a) 2 X 16 + 1 X 25 SQ.MM	Per Mtr	275	76	20900
17	5	26.5	Striniging of 1.1 KV grade aerial bunched 3 core cable of XLPE insulation standard aluminium conductor standard around a weather resistant black XLPE insulated AAA messanger wire a) 2 X 16 + 1 X 25 SQ.MM	Per Mtr	275	8.96	2464.275
18	69	286	Dead End Clamp/ Anchor clamps assembly 25 to 95 sqmm bear messanger (Standard Stock materials 2010-11)	Each	4	140.00	560
19	79	287	suspension clamp assemblly 25 to 95 sqmm bear messanger (Standard Stock materials 2010-11)	Each	11	280.00	3080
20		8 13/255	Errection of suspension clamp 25 to 95 sqmm bear messanger (Labour charges 2010-11)	Each	11	85.00	935
21		9 13/256	Errection of Anchor clamp 25 to 95 sqmm bear messanger (Labour charges 2010-11)	Each	11	85.00	935

No	SR ref page	SR ref sl no	Description of Work	unit	Qty	Rate	Amount
22	34	5.13.1.1	Fabricating, supplying and erecting swaged tubular pole of height ...Mtr having three sections, and providing two coats of red oxide paint and finished with two coats of enameled paint of approved quality and colour and M.S. base plate of suitable size welded at the bottom of the pole(as per IS) and 40mm dia GI / flexible PVC pipe of 1 mtr length fitted to the heavy gauge polycarbonate control box including 5way connector of size 167x125x82mm for 7.5M pole/200x160x98mm for remaining length of pole with front opening cover, with locking arrangements and suitable capacity MCB / DP switch, The pole shall be erected in cement concrete work (1:2:4) including excavation and refilling of planting depth of the pole to the ground level and the coping CC shall be up to 0.6M above ground level as per IS 2713 - 7. Erection of heavy duty pole on Footpath / median 5.13.1.1) 9Mt (5Mt Hb,165.1mm dia 4.85mm thick x2M Hm, 139.7mm dia 4.50mm thick x 2M Ht,114.3mm dia 3.65mm thick) as per IS 410 SP 32	Each	2	15000	30000
23	108	17.4.1	Supplying and fixing telescopic M.S. bracket fabricated by using 0.5m length 4" dia telescopic M. S. pipe, with 2" dia 1.5m long M. S. bracket and are welded with suitable angle, using 6mm thick M. S. sheet, grip bolts & nuts, as required, suitable for 9 to 12 mtrs. M. S. tubular pole, with necessary two coats of painting, with all other accessories. 17.4.1)Single bracket 1.5 Mtr. Length	Each	2	1292	2584
24	33	5.4.2	Supply and fixing of .....cross arm including all Hardware's complete as per the standard technical specification of BESCOM 2 Pin 45x45x5mm -510mm	Each	21	306	6426
25	33	5.8.5	Supplying and Fixing ..... including all Hardware's etc. complete as per the standard technical specification of BESCOM RCC Clamp	Each	21	84	1764
26	34	5.11	Supplying and stringing of ACSR Conductor (6/2.59mm Al +1/2.59mm Steel).	Per Mtr	239	30	7170
27			Supplying and Fixing .....including all Hardware's etc. complete as per the standard technical specification of BESCOM				
	34	5.9.1	1.1 KV Pin Insulator	Each	10	44	440
	34	5.9.5	No. 8 Strain Insulator	Each	3	14	42
			Miscellanious and roundoff				18.925
			Grand Total				**1500000.00**
Rupees Fifteen Lakh Only							

Certificate

1) Certified that,the work spot has been inspected by me & prepared the estimate in most economical way of executing the work.

2.) The Provisions made in the estimate are adequate and are necessary.

3.) The Work comes in the BBMP limit and is legitimate charges on the Corporation Funds.

4.) The rates in the Estimate is based on the KPWD (Elect) SR 2014-15, 2010-11 and Approved Lowest Quotation Rates.

Junior Engineer(Electrical)
RR Nagar Zone
BBMP

Assistant Executive Engineer (Elect)
RR Nagar Zone
BBMP

Executive Engineer(Elect)
RR Nagar Zone
BBMP

(5)

Administrative Sanctioned for Rs. 15,00000-00

Rs. Rupees Fifteen lakh only

.....Is accorded

under the head P3110

By EE (Elect) RRN/ page 4 & 5.

Registered as R.R.N. No. 01/17-18 Subject to conditions contained in enclosed memo No. 01/17-18 Date 6/5/17.

AE, (Elect) RRN

EE, (Elect) RRN

Technically Sanctioned for Rs. 15,00000-00

Rs. Rupees Fifteen lakhs only

.....Is accorded

under the head P3110.

By EE (Elect) RRN/ page 4 & 5.

Registered as R.R.N. No. 01/17-18 Subject to conditions contained in enclosed memo No. 01/17-18 Date 08/5/17.

AE, (Elect) RRN

EE, (Elect) RRN